

Vatsa Patel

Passionate & Proven Software Systems Engineer | Looking for Fall 2020 Internships

-  San Francisco Bay Area
-  vatsa.patel@sjsu.edu
-  +1 408 471 7539
-  /VatsaPatel

Experience

Software Engineering Intern | 3D RoomSpace Los Angeles, CA • May 2020 - Aug 2020

- Developed core services for the rental platform to **automate leasing, manage listings, deploy contracts on blockchain**.
- Rearchitected and migrated independent services under a scalable Kubernetes environment.

Tech Stack: GCP Cloud run, Kubernetes Engine | Node, GraphQL | React Native, React, Gatsby | DynamoDB

Contractor Software Engineer San Francisco, CA • May 2020 - Sep 2020

- UniversityEats**: Building service using Plaid to **automatically analyze spendings from all linked banks** and set goals.
- PodSource**, SF: Helped move to a scalable serverless architecture **reducing monthly bills by 72%**.
- Built a tool to **automatically tag and push docker images to 8 different Container Registries** with multiple logins.

Software Engineer | A D Patel Institute of Technology Part-Time • Aug 2017 - Sept 2018

Learning Management Platform

- Engineered **highly-available backend services** that are architected to scale even on low-end hardware.
- Deployed an **in-house private Cloud cluster** using OpenStack that can scale-up or scale-down based on load also providing IaaS for other student projects.
- Created a **custom network authentication service** integrating with internal IAM and auto-assigning bandwidth and QoS based on access level.

Tech Stack: React, React Native, Electron | NodeJS, Golang | MemSQL, HBase, Aerospike.

ADIT Alumni Hub Part-Time • Aug 2016 - Mar 2018

- Designed & **Developed a social platform** from scratch to allow Alumni to reconnect with each other, discover other alumni in same region and profession, share jobs & events. **Attained 6,400 users within first 3 months**.

Tech Stack: NodeJS, PHP | React, JQuery | MySQL, Memcached

Smarq Technologies Dec 2015 - May 2016

- Ideated a startup** at Qualcomm incubator which was selected in the top-10 startup ideas out of thousands of applicants.
- Smarq: tightly-knit ecosystem of smart sensors capable of automation sequences based on local location of user.

Software Developer | Purva Couture Aug 2015 - Dec 2015

- Single-handedly **developed a cloud-based Business Operations system** that managed from Sales to Production to Deliveries handling 700+ clients & revenue of \$1M+.

Projects

SlackHR Feb 2020 - May 2020

- Developed a Slack plugin application that helps combat abusive conduct at a workplace backed by a Multi-Label classifier using Neural Network. **Currently used at IBM research team's Slack**.

Reverse proxy to increase downlink bandwidth Aug 2019 - Sep 2019

- Developed a reverse proxy that substantially minimizes the effect of Bandwidth Delay Product on TCP Throughput by buffering the file on multiple connections.
- Preliminarily achieved 8x improvement in streaming on intercontinental bandwidth with BBR congestion control.

Federated Learning - Privacy Enhanced Collaborative Machine Learning Jan 2019 - Aug 2019

- Optimized Federated Averaging Algorithm optimized for Large-Scale LSTM-CNN when the input consists of large number of small-sized updates in Homomorphic Encryption.
- Submitted and got invited to present my research paper in IEEE conference.

Skills

Backend: NodeJS, PHP, Python, Java, C++ **Database:** SQL : MySQL, Postgres | NoSQL : MongoDB, Redis, DynamoDB

DevOps: AWS, GCP, Docker, Kubernetes, CI/CD, Chef, Kafka, Spark **Frontend:** React, React-Native, Android

Education

San Jose State University Jan 2020 - Dec 2021 Expected

Candidate for Masters in Computer Science. **Current GPA: 3.85**

Dual Specialization: Cloud Computing and Network Programming

Gujarat Technological University Jul 2015 - Jul 2019

Bachelor of Engineering in Computer Science. **GPA: 3.97**